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In the Matter Of:

IN RE: TELESCOPES ANTITRUST LITIGATION

5:20-cv-03642-EJD

J. DOUGLAS ZONA, PH.D.



1	UNITED STATES DISTRICT COURT
2	NORTHERN DISTRICT OF CALIFORNIA - SAN JOSE DIVISION
3	000
4	IN RE TELESCOPES ANTITRUST : LITIGATION :
5	:
6	AURORA ASTRO PRODUCTS, LLC, : PIONEER CYCLING & FITNESS, LLP; : and those similarly situated, :
7	: Plaintiffs, :
8	:
9	vs. : No. 5:20-cv-03642-EJD :
10	CELESTRON ACQUISITION, LLC, et : al., :
11	Defendants. :
12	:
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14	
15	VIDEO-RECORDED
16	DEPOSITION OF J. DOUGLAS ZONA, Ph.D.
17	December 20, 2024
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22	
23	Job No. J12170725
24	Stenographically reported by:
25	LAURA AXELSEN, CSR NO. 6173 RMR, CCRR, CRC, RDR



1	APPEARANCES
2	
3	FOR THE PLAINTIFFS:
4	
5	FROST LLP
6	BY: JOSH STAMBAUGH, ESQ.
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8	Los Angeles, Califonria 90024
9	
LO	FOR THE DEFENDANTS:
L1	
L2	BRAUNHAGEY & BORDEN
L3	BY: GARRETT BIEDERMANN, ESQ.
L4	747 Front Street, 4th Floor
L5	San Francisco, California 94111
L6	
L7	There also being present in the deposition room
L8	Olivia Smith and Peter Matteson, videographer, and via
L9	Zoom Michael McDonald, Lawrence Liu, and Donald Stamper,
20	Exhibit Technician.
21	
22	00
23	
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1	MR. BIEDERMANN: Objection to form. Calls for
2	a legal conclusion.
3	THE WITNESS: I'm not sure what you mean by
4	conspiracy.
5	MR. STAMBAUGH: Q. Do you have any opinions
6	on whether or not there was a conspiracy to fix prices
7	in your report in this case?
8	MR. BIEDERMANN: Objection to form. Calls for
9	a legal conclusion.
10	THE WITNESS: My understanding was that before
11	2005 in particular, there was cross-ownership and
12	cross-directorships, and that would tend to blunt
13	competition between what might otherwise be two
14	independent competitors.
15	MR. STAMBAUGH: Q. Do you believe that there
16	was a conspiracy at any point in time? Is that part of
17	your opinions in this case?
18	MR. BIEDERMANN: Objection to form. Calls for
19	a legal conclusion.
20	THE WITNESS: What I described might be a
21	conspiracy.
22	MR. STAMBAUGH: Q. I'm not asking about what
23	might be described as a conspiracy. I'm asking is one
24	of your opinions in this matter that there was a
25	conspiracy to fix prices?



1	Q. According to what?
2	A. My analysis.
3	Q. What analysis did you do that determined the
4	JOC share was I believe your word was irrelevant?
5	A. Well, I'm looking at the share table on
6	page 17 of my report, Exhibit 2, and I suppose they have
7	10 percent market share still after 2016, but before
8	then, it seemed small.
9	Q. Let's go ahead and move to Exhibit 2. This is
10	your November 1st or May 20th report.
11	A. Yes.
12	Q. Paragraph 98.
13	A. Yes.
14	Q. In Paragraph 98, you state in the figure
15	below, I displayed the expected overcharged conditional
16	on the number of cartel members and cartel market share
17	as measured by the Connor PIC data. The table shows how
17 18	
	as measured by the Connor PIC data. The table shows how
18	as measured by the Connor PIC data. The table shows how the expected overcharges overcharge increases as
18 19	as measured by the Connor PIC data. The table shows how the expected overcharges overcharge increases as market share and number of cartel members increase. In
18 19 20	as measured by the Connor PIC data. The table shows how the expected overcharges overcharge increases as market share and number of cartel members increase. In applying these overcharges, I have used a market share
18 19 20 21	as measured by the Connor PIC data. The table shows how the expected overcharges overcharge increases as market share and number of cartel members increase. In applying these overcharges, I have used a market share for Synta excuse me. Sunny slash Synta of 40 percent
18 19 20 21 22	as measured by the Connor PIC data. The table shows how the expected overcharges overcharge increases as market share and number of cartel members increase. In applying these overcharges, I have used a market share for Synta excuse me. Sunny slash Synta of 40 percent open paren, which likely understates the combined share
18 19 20 21 22 23	as measured by the Connor PIC data. The table shows how the expected overcharges overcharge increases as market share and number of cartel members increase. In applying these overcharges, I have used a market share for Synta excuse me. Sunny slash Synta of 40 percent open paren, which likely understates the combined share of Sunny and Synta and is thus conservative close paren



1	So, Dr. Zona, you have assumed a market share
2	of Sunny and Synta of 40 percent prior to 2005; is that
3	correct?
4	A. Yes.
5	Q. And you believe that that resulted in
6	estimated overcharge of 16.7 percent in the pre-2005
7	period; is that correct?
8	A. Well, it did. There's no belief about it. It
9	did result in 16.7 in the conditional on two cartel
10	members of conspiracy one, two, and the 40 percent
11	market share.
12	Q. What do you mean by it did result in a
13	16.7 percent overcharge?
14	A. I'm just reading the number from the table,
15	and the table is what it says. The conditional expected
16	value of the overcharge based on the number of cartel
17	members in the cartel market share measured by Connor.
18	So it's just an average the expected conditional
19	expectation based on the Connor data.
20	Q. You didn't do any actual analysis to see if
21	that did happen in the pre-2005 period though, correct?
22	MR. BIEDERMANN: Objection to form.
23	THE WITNESS: I don't know how I could
24	possibly do that. You're asking me did I observe the
25	but-for world. No, I can't observe the but-for world.



1	THE WITNESS: I gave you my answer.
2	MR. STAMBAUGH: Q. Is there a reason you
3	can't answer my question?
4	A. I did answer your question.
5	MR. BIEDERMANN: Objection; argumentative.
6	MR. STAMBAUGH: Q. Did you rely on any
7	empirical data from the telescope industry in order to
8	arrive at your estimated alleged 16.7 percent
9	overcharge?
10	MR. BIEDERMANN: Objection; asked and
11	answered.
12	THE WITNESS: 16.7 percent is based on
13	Connor's data of the effect of conspiracy on prices, and
14	there's no specific telescopes data that I'm aware of
15	that's part of that dataset.
16	MR. STAMBAUGH: Q. And therefore, you did not
17	rely on any specific telescope industry data, correct?
18	MR. BIEDERMANN: Objection to form.
19	THE WITNESS: In analyzing Connor's data, I
20	didn't rely on data that he didn't have in his dataset.
21	MR. STAMBAUGH: Q. In order to rely at the
22	16.7 percent estimated alleged overcharge, you didn't
23	look at any sales data in the telescope industry,
24	correct?
25	A. That would be different analysis. No, I



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- didn't do the analysis that you're suggesting to come up with 16.7. I only used the PIC data to come up with the
- 3 PIC databased 16.7.

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- Q. Let's pause here. You've given me a good comparison. You came up with 16.7 percent under one part of your analysis, one model let's call it, and you came up with 6.9 percent in the pre-2005 using another analysis, another model. Why did you go to the 16.7 instead of the 6.9?
- I thought that the 16.7 was more specific to the facts and circumstances of the case than Cournot. The Cournot model is, as I tried to explain in my report, and I may not have done it very well, but it's a starting point that most IO economists will use to evaluate the effect of lost competition or conspiracy on market prices. So I started there, and I have made calculations, came up with 6.9 in that particular circumstance, and other numbers in other circumstances. 17.4, 35.7 depending on the number of competitors that are illuminated, so I thought that the Cournot model was, again, a sort of a academic-type starting point, and I applied directly a model that comes from a textbook in coming up with those numbers, which I've cited, and then when I used the PIC data, I'm actually using the facts and circumstances of the telescopes



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1	here, but yeah. I don't recall.	
2	Q. So you don't know what data that you looked	
3	at, if any, in order to arrive at 40 percent market	
4	share, correct?	
5	A. I don't recall what I used, and I don't have a	
6	reference in here.	
7	Q. And you can't tell us here today why you chose	
8	that number? How you arrived at that number?	
9	A. It's the lowest, most conservative of the	
10	numbers that I have in my table, which might be why I	
11	used 16.7 and why I used, you know, ultimately	
12	40 percent.	
13	Q. Is that why you used 40 percent, because you	
14	looked at the Connor PIC data and decided to use the	
15	lowest market share to perform the calculation; is that	
16	the reason?	
17	A. I don't as I just said, I don't recall	
18	exactly what the reason was for for the 40 percent	
19	number. What I observe now is that it is the lowest	
20	number. So if we come up with a higher number than	
21	40 percent, it will result in a number bigger than 16.7	
22	from the Connor data.	
23	Q. So you didn't do any calculation based on any	
24	actual data to arrive at 40 percent?	



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A. I didn't say that.

1	MR. BIEDERMANN: Objection to form.
2	MR. STAMBAUGH: Q. What calculation did you
3	perform, Dr. Zona, to arrive at 40 percent?
4	A. I'm telling you I don't remember what it was.
5	Q. You told me earlier that there are two
6	foundational pieces of the Connor PIC data, right?
7	There's number of competitors and market share. And
8	what you're telling us now is that you had no basis that
9	you can explain to us as to why you arrived at a
10	40 percent combined market share for Sunny and Synta
11	MR. BIEDERMANN: Objection to form.
12	MR. STAMBAUGH: Q is that correct?
13	A. Your question really suggests that you
14	don't that I'm not communicating the method that was
15	used because that's there's a lot of misunderstanding
16	embodied in your question. There are two important
17	there are two important dimensions in determining the
18	affect of conspiracy on market price, and they're the
19	number of competitors that are involved and the market
20	share that they command, those are two numbers that
21	aren't from the PIC data.
22	They're from economic theory and from
23	industrial organization economics. So if you're looking
24	at that all the empirical analysis that's built into
25	that. So those two numbers are the two characteristics



1	model is going to spit out and with respect to one of
2	those two dimensions, you have no idea how you arrived
3	at the 40 percent market share figure; isn't that
4	correct, sir?
5	A. No.
6	MR. BIEDERMANN: Objection to form.
7	MR. STAMBAUGH: Q. How did you arrive at
8	40 percent market share? You testified that you
9	observed there were two co-conspirators. You said that
10	you looked at market data with respect to the market
11	share post-2005. Are there things that you observed?
12	You were actually able to review data. What did you do?
13	What data did you look at to arrive at the 40 percent
14	market share figure pre-2005?
15	MR. BIEDERMANN: Objection to form.
16	THE WITNESS: I don't recall what I did for
17	the 40 percent number and I don't have a footnote.
18	MR. STAMBAUGH: Q. If you
19	A. That doesn't mean I didn't do anything or
20	don't have a method. It means I don't remember as I'm
21	sitting here right now.
22	Q. Well
23	A. Your question was suggesting that I don't have
24	a method.
25	Q. You can't tell us here today, Dr. Zona, how



1	you arrived at a 40 percent market share, correct?
2	MR. BIEDERMANN: Objection to form.
3	THE WITNESS: I don't remember the basis for
4	this 40 percent share that's in the sentence in
5	Paragraph 98 in my report, and there's no footnote that
6	will remind me what it is what it was.
7	MR. STAMBAUGH: Q. And, in fact, you can't
8	tell us anything about how you arrived at that
9	40 percent market share, as you sit here today, correct?
10	MR. BIEDERMANN: Objection; asked and answered
11	about six times. If you want to answer it again,
12	Dr. Zona, feel free.
13	MR. STAMBAUGH: I can understand your
14	frustration counsel, but I am entitled to an answer.
15	MR. BIEDERMANN: Yeah, and you've received it
16	about five times. So
17	MR. STAMBAUGH: That was a separate question.
18	Isn't it true that, sitting here today, you can't tell
19	us anything about how you arrived at the 40 percent
20	market share figure for Sunny and Synta pre-2005?
21	MR. BIEDERMANN: Asked again about seven
22	times. If you want to answer it again, Dr. Zona, feel
23	free.
24	MR. STAMBAUGH: Pretty sure the record will
25	reflect that he didn't answer it the last time. Do you



1	have the question in mind?
2	THE WITNESS: No. Why don't you ask me one
3	more time?
4	MR. STAMBAUGH: Q. To be fair, you didn't
5	answer it that time either. I got witnesses. Dr. Zona,
6	isn't it correct that you cannot tell us anything about
7	how you arrived at the 40 percent market share figure
8	for Synta and Sunny pre-2005 for Sunny and Synta
9	pre-2005, as you sit here today?
10	MR. BIEDERMANN: Objection to form. Misstates
11	testimony.
12	THE WITNESS: I told you that I think that's
13	incorrect.
14	MR. STAMBAUGH: Q. Why is it incorrect?
15	A. It's incorrect because I believe that's my
16	understanding of what Synta and Sunny's share was in
17	that time period. I have an understanding of what that
18	is. I also said before that it happens to produced the
19	smallest number of the ones in the table here. So it
20	would be most beneficial to you.
21	If you want to argue for a bigger number, you
22	know, we could do that and recalculate damages, but that
23	one is the one that produces the smallest ones of the
24	ones in the table here. So there are things that I'm
25	telling you about 40 percent and how I got to it.



1	Q. I'll object as
2	A. But I don't
3	Q. Please.
4	A. But I don't recall specifically how I got the
5	40 percent, and I don't have a footnote where I probably
6	should have.
7	Q. I'll object as non-responsive and move to
8	strike. What is the basis for your, quote,
9	understanding that they had a combined market share of
10	40 percent?
11	A. I understand that they weren't the only
12	manufacturers at that time. The other I mean, I'm
13	not sure that the basis for that was the Orion, you
14	know, information from the Orion trial or not. I just
15	don't recall exactly what gives me that understanding,
16	but that's my understanding.
17	Q. So there's nothing you can tell us here today
18	that you would base that understanding on?
19	A. I've told you many times that I don't recall
20	where the 40 percent comes from in this particular
21	circumstance.
22	Q. And I can appreciate that.
23	A. The one number in here I don't remember
24	Q. I can appreciate that. I just
25	A how it got there.



1	Q. I'm sorry. I appreciate that you may not
2	recall. I'm simply clarifying the record that you
3	provided us no basis for that understanding here today;
4	isn't that correct?
5	MR. BIEDERMANN: Objection; form. Asked and
6	answered.
7	THE WITNESS: I told you I don't recall.
8	MR. STAMBAUGH: Q. So it's correct that you
9	can't tell us anything about how you arrived at that
10	figure; isn't that right?
11	A. You said
12	MR. BIEDERMANN: Object to form. Asked and
13	answered.
14	THE WITNESS: You said anything again, and
15	I'll tell you what. I mean, I do have information about
16	40 percent is my understanding, and I'm not sure exactly
17	how I have that understanding. I also know that it's
18	the most conservative number on behalf of your client.
19	MR. STAMBAUGH: Q. Are there other opinions
20	that you have in your report that are based on your
21	understanding, but you don't have any evidence in
22	support of that understanding?
23	MR. BIEDERMANN: Object to form.
24	Argumentative.
25	THE WITNESS: I wouldn't



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I don't recall as I sit here right now. There's --1 2 Understood. Q. 3 Α. We could go through each of the sentences in here, I mean, I wouldn't have -- before you asked me, I 4 wouldn't have said do you -- is there another place 5 6 where you don't remember what you did and it's not 7 indicated by a footnote? And I would say -- I would 8 have thought that there aren't any such things, but you 9 found one. 10 Ο. Well, the one that I found. I'm not aware of any other ones, but we could 11 Α. 12 go through each thing. My name is John Douglas Zona. I 13 received a Ph.D. in economics. I mean, I have a basis 14 for that. I've seen my diploma. 15 The difference is, Dr. Zona, your 0. All right. 16 name and your diploma are not one of the two 17 foundational inputs in your model that leads you to 18 arrive at a 16.7 percent overcharge that you apply 19 across the board. So, to be fair, and I think it will 20 be clear to a judge or a jury when I asked what the basis is for one of those two foundational inputs an 21 answer like I have an understanding, but I don't know 22 23 where I got that understanding is a little 24 disconcerting. So I will ask -- we're going to move on, but 25



1	I'm going to ask my other question again. Are there
2	other conclusions that you arrived at and these are
3	primary conclusions in your report are there any
4	other conclusions for which you have no basis to make an
5	opinion other than your own understanding apart from the
6	40 percent market share figure?
7	A. So I just
8	MR. BIEDERMANN: I'm going to object to
9	counsel's argument. If you found a question there,
10	you're free to answer it, Mr. Zona Dr. Zona.
11	THE WITNESS: I just disagree with the
12	premise.
13	MR. STAMBAUGH: Q. You're free to disagree
14	with the premise.
15	A. I disagree with the premise, and I can't
16	answer the question.
17	Q. Why can't you answer the question?
18	A. Because I disagree with the premise. The
19	premise is false. So I can't answer a question with a
20	false premise.
21	Q. Let's try this one more time. What's false
22	about the premise?
23	MR. BIEDERMANN: Objection; argumentative.
24	THE WITNESS: What's false about the premise
25	is that you say that there are you're asking the



1	question about whether there are other examples where I
2	have no basis for a number that's reported in the
3	report. That presumes that the 40 percent number that
4	we've been talking about has no basis. I don't agree
5	with that.
6	MR. STAMBAUGH: Q. But what is the basis?
7	I'm sorry.
8	A. You've asked this question many times, and I
9	told you I don't remember, as I sit here right now, and
10	my notes are insufficient to provide me with to
11	refresh my recollection.
12	Q. Fair enough.
13	A. I think that if I can go back to my work
14	papers, I'll find a basis for it.
15	Q. Doubtful, but fair enough.
16	A. Why is it doubtful?
17	Q. Are there any other conclusions listed in your
18	report, foundational inputs or outputs for which you
19	don't recall the basis for those figures, as you sit
20	here today?
21	A. I don't.
22	MR. BIEDERMANN: Objection; argumentative.
23	Asked and answered about seven times.
24	THE WITNESS: I don't know. We can go through
25	each one.



1	we try again or repeat it or something?
2	Q. Dr. Zona, what was Meade's share as the
3	largest supplier of telescopes in the U.S. pre-2005?
4	A. You asked me that question. I told you that I
5	didn't know.
6	Q. What about Celestron's market share?
7	A. I don't know specifically. I just know that
8	they were large.
9	Q. What about
10	A. They were the largest and the second largest.
11	Q. What about Tasco's share market share?
12	A. I told you before that I didn't separate out
13	Tasco Tasco Worldwide versus Celestron.
14	Q. What about JOC's market share pre-2005?
15	A. I don't recall. We went through this. I
16	don't recall specific market shares in that particular
17	time period.
18	Q. Did you do an analysis of market shares
19	pre-2005?
20	A. What do you mean by analysis?
	A. What do you mean by analysis? Q. Did you look at any market share data or any
20	
20	Q. Did you look at any market share data or any
20 21 22	Q. Did you look at any market share data or any other empirical analysis to determine those market



1	THE WITNESS: The corporate representatives of
2	the largest manufacturers manufacturer does not
3	compute market shares of itself or its competitors.
4	There's not market share data readily available. So,
5	no, I haven't looked at market share data.
6	MR. STAMBAUGH: Q. Then how in the world
7	could you estimate a 40 percent market share for Synta,
8	Sunny and Synta?
9	A. I don't
10	MR. BIEDERMANN: Objection; argumentative.
11	Asked and answered.
12	MR. STAMBAUGH: Q. Does that make sense to
13	you?
14	MR. BIEDERMANN: Same objections.
15	THE WITNESS: No, it doesn't make sense to me.
16	MR. STAMBAUGH: Q. Does it make sense to you
17	that you could come up with a combined market share of
18	40 percent for Sunny and Synta when you just told me no
19	market share was available? None of the entities keep
20	data on it, and there was no other way to calculate it
21	with respect to, for instance, the distributor or
22	retailer side?
23	MR. BIEDERMANN: Objection; argumentative.
24	MR. STAMBAUGH: How would you possibly come up
25	with that 40 percent figure for Sunny and Synta?



1	MR. BIEDERMANN: Objection; argumentative.
2	Compound. Asked and answered.
3	THE WITNESS: I think I've told you I don't
4	recall.
5	MR. STAMBAUGH: Q. Let's take a look at
6	Paragraph 50 of the November 1st or May 20th report,
7	depending on how you look at it. In Paragraph 50 you
8	state a market share of 50 percent or more has been
9	viewed by the courts as a threshold for market power.
10	Do you agree with that statement?
11	A. Yes.
12	Q. So what analysis did you do to determine that
13	a combined market share of 40 percent is sufficient for
14	Synta and Sunny to exercise market power in the pre-2005
15	time period?
16	MR. BIEDERMANN: Objection; misstates his
17	opinion.
18	THE WITNESS: I don't have that opinion.
19	MR. STAMBAUGH: Q. You don't believe that
20	Sunny and Synta had market power pre-2005?
21	A. I do, yes.
22	Q. What is that opinion?
23	A. That they had market power. They were able to
24	raise price above the competitive levels by acting
25	together.



1	Q. Let's take it very slowly. Dr. Zona, is it
2	your opinion that Sunny and Synta had market power
3	pre-2005?
4	A. Yes.
5	Q. Not to rehash old wounds, is it your opinion
6	that during that time, pre-2005, Sunny and Synta had a
7	combined 40 percent market share?
8	A. My opinion is that that is is that is a
9	reasonable number to use for the purpose of calculating
_0	an overcharge during that time period in the way that
.1	I've done it.
2	Q. What analysis did you perform in order to
.3	determine that Sinna Synta and Sunny's combined
_4	40 percent market share was sufficient to exercise
_5	market power in the pre-2005 time period?
-6	A. So so could we I know this is a
_7	question. But could we could we take this as a
_8	question as of is 40 percent sufficient to establish
_9	market power? Is that your question enough?
20	Q. No, sir. I'd appreciate an answer to my
21	question.
22	A. Okay. Then you have to break it down for me
23	further.
24	Q. What analysis did you do to determine that the
25	combined 40 percent market share for Synta and Sunny was



1	powers, high market share, high barriers to entry. So I
2	looked at high barriers to entry. None of it was
3	specific to that time period. It was all general over
4	the whole time period, but I believe that I.P. was
5	important. I believe that there's still scale issues
6	and significant learning by doing. It makes sense in
7	this kind of industry.
8	Q. And based on this analysis, is it your
9	assumption that Celestron, an independent manufacturer
10	and distributor at this time, pre-2005, charged prices
11	16.7 percent above the competitive benchmark?
12	MR. BIEDERMANN: Objection; form.
13	THE WITNESS: Yes.
14	MR. STAMBAUGH: Q. What is the basis for that
15	assumption?
16	A. Well, the number you quoted is based on the
17	PIC data, so it must be the PIC data.
18	Q. Is it based on anything else?
19	A. You asked me about a specific number. You
20	could if you given that you're asking about a
21	specific number, the basis for that specific number is
22	the PIC data if you said more than 10 percent, then I
23	might tell you something else, but you're asking about a
24	very specific number.
25	Q. What analysis or investigation did you conduct



1	to determine that Celestron would or could raise prices
2	16.7 percent in response to the anti-competitive
3	conduct?
4	A. May I have the question again?
5	Q. Could you please read it back?
6	A. I'm not sure who to ask.
7	(Record read by the reporter:
8	"QUESTION: What analysis or investigation
9	did you conduct to determine that Celestron
10	would or could raise prices 16.7 percent in
11	response to the anti-competitive conduct?")
12	THE WITNESS: So are you referring to 2001 to
13	2005? What time period are you referring to?
14	MR. STAMBAUGH: Q. Let me clarify for this
15	question as has been the case for the last hour. I'm
16	referring to the pre-2005 time period. We're going to
17	continue to refer to that time period for purpose of my
18	question. What analysis did you do to support your
19	assumption that Celestron could or would raise prices
20	16.7 percent in response to the anti-competitive
21	conduct?
22	A. So the conclusion that, based on the PIC data,
23	which is one measure of a price inflation based on the
24	conspiracy of Synta and Sunny before 2005 when they
25	acquired their competitor, before that time period, when



1	they acquired their competitor, based on the industry
2	characteristics and measured with Connor's PIC dataset,
3	which reflects how well conspiracies were able to raise
4	price above to competitive level the number
5	16.7 percent.
6	So that's that's the the line of the
7	reasoning, chain of reasoning, for the 16.7, and it
8	would raise, you know, under that model, the market
9	price would be raised by 16.7 percent, and all the
10	participants, the conspirators, the non-conspirators,
11	including Meade and Celestron would have been able to
12	enjoy that elevated price.
13	Q. Is it your opinion that Celestron actually did
14	charge or raise prices 16.7 percent above the
15	competitive benchmark from 2001 to 2005?
16	A. 16.7 is one number based on one method. I
17	mean, whether it's it might be more than 16.7, it
18	might be less, but the best estimate that I have based
19	on the PIC data is 16.7 percent.
20	MR. BIEDERMANN: I'll object as non-responsive
21	and move to strike. Can you read back the question,
22	please?
23	(Record read by the reporter:
24	"QUESTION: Is it your opinion that
25	Celestron actually did charge or raise



1	A. He said when you are giving
2	MR. BIEDERMANN: Let's not disclose the
3	THE WITNESS: the contents. Okay.
4	MR. BIEDERMANN: We're I can represent we
5	did not discuss the content of Dr. Zona's opinions.
6	MR. STAMBAUGH: Q. Do you agree with that
7	representation?
8	A. Yes.
9	Q. Dr. Zona, it's no secret there's been some
10	discussion about the PCE variable between the experts in
11	this case. I want to draw your attention to Exhibit 4,
12	which is the rebuttal report.
13	A. Okay.
14	Q. Paragraph 16 in particular.
15	A. Yes.
16	Q. Paragraph 16, about midway through the
17	paragraph, you state, Additionally, my refusal to deal
18	analysis in the Orion litigation forecasted future sales
19	volumes to U.S. consumers, which relates to the
20	aggregate income of U.S. consumers and makes the use of
21	a PCE variable more appropriate. You see where that's
22	listed?
23	A. Yes.
24	Q. Okay. And I believe the reason you're having
25	this discussion is there was mention of the fact that



1	you did include the PCE variable in your Orion expert
2	analysis, correct?
3	A. I did include the PC PCE variable in some
4	of in my opinion Orion analysis. Yes, I did.
5	Q. Okay. And that's why you're saying here it
6	was appropriate in the Orion litigation because you were
7	forecasting future sales volumes to U.S. consumers,
8	which relates to the aggregate income of U.S. consumers
9	and makes the use of a PCE variable more appropriate.
10	Is it your position, Dr. Zona, that the PCE
11	variable is a measure of U.S. consumers' aggregate
12	income?
13	A. No, it's expenditures.
14	Q. Is it your position that the aggregate income
15	of U.S. consumers affects the sales volume of telescopes
16	to U.S. consumers?
17	A. I think that was the idea in the Orion model
18	of specifically forecasting volumes, not prices. So I
19	was trying to predict what Orion's volumes would be. So
20	I'm trying to use variables that would meet with that
21	volumes. So, I mean, the purpose of this paragraph
22	you said why did I write 16 I'm trying to
23	differentiate a situation where I'm forecasting volumes
24	with a price regression, which is what I have in the
25	current case.



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	The second control of
1	Q. So
2	A. Totally different analysis and totally
3	different purpose.
4	Q. So you would agree that the aggregate income
5	of U.S. consumers affects the sales volumes of
6	telescopes to U.S. consumers?
7	A. It might.
8	Q. All things being equal, if the sales of
9	telescopes to U.S. consumers increases, would one expect
10	that to affect the price of telescopes?
11	A. No.
12	Q. Why not?
13	A. Well, prices for profit maximizing firms are
14	based on a mark-up formula where the price, the
15	approximate maximizing price is equal to cost plus
16	something. It's like just basic industrial organization
17	economics. So its price is equal to cost plus a mark-up
18	that has to do with how sensitive revenues will be to
19	prices charged. So it's a it's a measure of
20	sensitivity.
21	Q. So it's your
22	A. The sensitivity may or may not change with
23	increases in income.
24	Q. So it's your testimony that an increase in

volume would have no effect on the price of the



25

1	members, and the average in that case is the 42 percent.
2	That's the basis yeah, I mean, that's the basis of
3	the those 61 observations are the basis for that
4	table on page 37, which that is notorious 40 percent and
5	16.7 numbers in there. That's a regression.
6	MR. STAMBAUGH: Q. Dr. Zona, do you agree
7	that the economic literature makes clear that yardsticks
8	have to be comparable to the industry in question in
9	order for that analysis to be effective?
10	A. Yeah, I think so.
11	Q. What analysis
12	A. I wouldn't be surprised. I don't recall that,
13	but I wouldn't be surprised.
14	Q. What analysis did you conduct to determine
15	that each of the 61 industries in the Connor PIC data
16	that you used as yardsticks were comparable to the
17	telescope industry?
18	A. They're comparable because the number of
19	conspirators and the size of the market that the
20	conspirators captured. That's the relevant information
21	for doing what would be expected to affect the
22	overcharge in the circumstances.
23	Q. So, for instance, one of those 61 observations
24	is the cement and concrete ready mix industry in coastal
25	Georgia. Did you do any analysis to determine if that



1	industry is comparable at all to the consumer telescope
2	industry?
3	A. Sure. I did what I just said. I compared the
4	number of people invol number of firms involved in
5	the cartel between two and four, and I also limited it
6	based on the number of the market share.
7	Q. Any other independent
8	A. Sorry. I just I did not limit it by market
9	share. I included that as a variable in the regression
10	when I did that analysis.
11	Q. Any other independent analysis that you
12	conducted other than what you've just mentioned?
13	A. What I described is what's in my report and
14	that's what I did.
15	Q. And I'll represent to you that one of those 61
16	observations is the heavy lift marine industry
17	construction industry. Did you do any analysis other
18	than what you've already mentioned to see if that's
19	comparable to the consumer telescope industry?
20	MR. BIEDERMANN: Objection to form.
21	THE WITNESS: It's comparable in terms of the
22	competitive circumstances.
23	MR. STAMBAUGH: Q. So the answer
24	A. In the same way that the other one was.
25	Q. So the answer to my question is no, you didn't



1	do any other independent analysis to see if there were
2	any comparisons?
3	MR. BIEDERMANN: Objection to form.
4	MR. STAMBAUGH: Q. Other than what you've
5	already mentioned?
6	A. No, I only did what I've described.
7	Q. Is it important to control for any differences
8	between the yardstick and a market under consideration?
9	A. I think I have controlled. It is important
10	and I have controlled.
11	Q. How did you control for them, the differences?
12	A. The way that I've already described.
13	Q. What controls or independent variables did you
14	include in your Connor PIC regression analysis that
15	would control for the differences between the 61
16	industries and the consumer telescope industry?
17	A. I think just the the number of conspirators
18	in the market share that they commanded those two
19	variables.
20	Q. Let's turn
21	A. I mean, as I recall, neither of those
22	variables were significant in the regression that I did,
23	which means that there's no statistical difference
24	between the rows and columns that appear in the table on
25	page 37.



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shipment included telescopes as well as other products 1 2 in the product description? 3 Α. Yes. 4 0. Why? Because I didn't want to mix like almost 5 Α. 6 literally apples and oranges. I was trying to identify 7 those containers that came that contained only 8 telescopes and computed market shares based on the only 9 full containers rather than partial containers. 10 For those telescope shipments that you 0. excluded, do you know whether it is more or less likely 11 12 that the excluded shipments were defendant or 13 non-defendant telescopes? 14 I don't know that. We might be able to tell, 15 but I didn't do that, and I don't know. 16 0. Dr. Zona, do all telescopes have the same 17 weight? 18 Α. No. 19 0. So it's possible that two shipments that weigh 20 the same, one shipment may have a larger number of 21 telescopes than the other shipment? 22 Α. Right. 23 And it's also possible that for two shipments 0. 24 that weigh the same, one shipment may contain 25 higher-priced telescopes than the other shipment?



1	A. Sure.
2	Q. Did you use the exact same data to perform the
3	market share analysis in this case as you did in the
4	Orion matter?
5	A. No.
6	Q. Why not?
7	A. I couldn't get the Panjiva data. Again and
8	I got this Import Genius, which is also like a data
9	collector, it's the same sort of stuff based off the
10	bill of lading, but it was available to me for this
11	later time period, not what I was able to get five years
12	ago.
13	Q. I'm sorry. Is it your testimony that the data
14	you used for market share analysis in this case was not
15	available five years ago?
16	A. I don't know whether it was available
17	five years ago or not. The Panjiva data wasn't
18	available now or I wasn't able to get it.
19	Q. The data that you used in the Orion case was
20	not available this time around for this case?
21	A. For yeah, for some reason. It could have
22	been cost. I don't recall. It might have been
23	available paying a high price or something. Panjiva I
24	think is still around, but I don't know that they had
25	that particular data. I know as we were looking for a



1	data source, we tried to get the Panjiva the same thing,
2	and we got determined that there was another source
3	that would be the same Import Genius.
4	Q. Who is "we" determined?
5	A. Well, I determined, but we looked, we being
6	Chris Gross that works for me on this particular case.
7	Q. You're talking about your team?
8	A. Yeah, my team, me and Chris.
9	Q. Did counsel at BraunHagey & Borden tell you to
10	use any particular market share data?
11	A. No, I don't think so.
12	Q. Let's scroll to Paragraph 115 of this report.
13	A. Yes.
14	Q. So in Paragraph 115, you are calculating
15	damages by incorporating Meade sales during the period
16	of Sunny ownership from September 2013 through 2019; is
17	that correct?
18	A. That's the intent, yes.
19	Q. And you calculated Meade sales during that
20	time period as approximately 68 million; is that
21	correct?
22	A. Yes.
23	Q. Is it possible that some of those Meade sales
24	may be outside the U.S.?
25	A. It looks like in Paragraph 115, I'm saying



1	that in particular does not appear to be possible to
2	identify Meade's telescope sales versus other sales nor
3	whether the customer was U.S. based, so I can't tell
4	from the data that I had.
5	Q. You can't tell whether or not the sales were
6	in the U.S. or outside the U.S., correct?
7	A. Right. I don't know.
8	Q. And it's also possible that some of those
9	sales may be in products other than telescopes, correct?
10	A. It's possible. I don't know what was produced
11	exactly.
12	Q. Did you
13	A. This is a data that we received.
14	Q. Did you speak to anyone at Meade about the
15	Meade sales data that you used to calculate the
16	68 million in sales?
17	A. I'm not sure. There was a lot of back and
18	forth on data, and I don't know if that was part of it
19	or not.
20	Q. Did you speak to anyone at Orion regarding the
21	Meade sales data that you used to calculate this
22	68 million in Meade sales?
23	A. I did not, no.
24	Q. Do you have any documents or correspondence
25	that explained how to interpret the Meade sales data,



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CERTIFICATE

2.0

I, the undersigned, a Certified Shorthand
Reporter, State of California, hereby certify that the
witness in the foregoing deposition was by me first duly
sworn to testify to the truth, the whole truth, and
nothing but the truth in the within-entitled cause; that
said deposition was taken at the time and place therein
stated; that the testimony of the said witness was
reported by me, a disinterested person, and was
thereafter transcribed under my direction into
typewriting; that the foregoing is a full, complete, and
true record of said testimony; and that the witness was
given an opportunity to read it and, if necessary,
correct said deposition and to subscribe the same.

I further certify that I am not of counsel or attorney for either or any of the parties in the foregoing deposition and caption named, nor in any way interested in the outcome of the cause named in said caption.

Executed this 29th day of December, 2024.

